

## **Abstract**

A pointing device having a fingerprint recognition function, a fingerprint image recognition and pointing method, and a method for providing a portable terminal service 5 using the same are disclosed. In the pointing device having a fingerprint recognition function and a fingerprint recognition method, fingerprint images having small sizes are mapped to generate a large fingerprint image or a small fingerprint image extracted from the large fingerprint image so that the pointing device performs user recognition and pointer control. As a result, respective sensors for the user recognition and for the 10 pointer control are not comprised in the pointing device, but only one kind of sensors for performing both functions of user recognition and pointer control is comprised in the pointing device according to an embodiment of the present invention. Also, it is possible to easily embody miniaturization of a portable terminal device because the user 15 recognition which requires a large fingerprint can be performed only with a small fingerprint image, thereby reducing manufacturing cost. Additionally, important information in the portable terminal device having the pointing device can be protected by selectively limiting kinds of service usable in the portable terminal device depending on user recognition.

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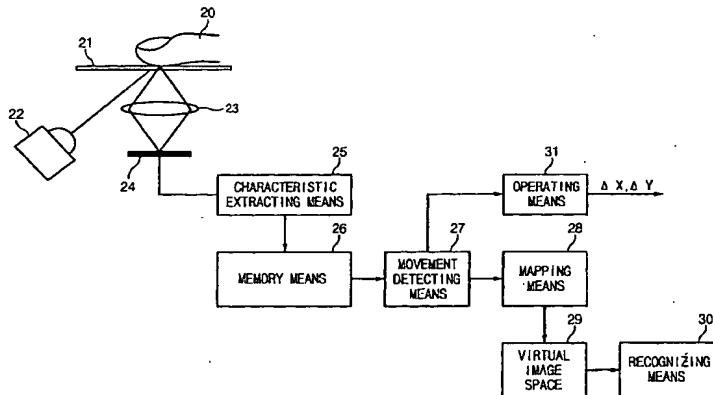
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(54) Title: POINTING DEVICE HAVING FINGERPRINT IMAGE RECOGNITION FUNCTION, FINGERPRINT IMAGE RECOGNITION AND POINTING METHOD, AND METHOD FOR PROVIDING PORTABLE TERMINAL SERVICE USING THEREOF



(57) Abstract: A pointing device having a fingerprint recognition function, a fingerprint image recognition and pointing method, and a method for providing a portable terminal service using the same are disclosed. In the pointing device having a fingerprint recognition function and a fingerprint recognition method, fingerprint images having small sizes are mapped to generate a large fingerprint image or a small fingerprint image extracted from the large fingerprint image so that the pointing device performs user recognition and pointer control. As a result, respective sensors for the user recognition and for the pointer control are not comprised in the pointing device, but only one kind of sensors for performing both functions of user recognition and pointer control is comprised in the pointing device according to an embodiment of the present invention. Also, it is possible to easily embody miniaturization of a portable terminal device because the user recognition which requires a large fingerprint can be performed only with a small fingerprint image, thereby reducing manufacturing cost. Additionally, important information in the portable terminal device having the pointing device can be protected by selectively limiting kinds of service usable in the portable terminal device depending on user recognition.

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